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Remarks

Claims 22-24, 49-50 and 54-55 have been amended to change the symbol for micrometers from μ to μm . While both symbols are correct, the latter is the more officially recognized symbol. A copy of a web site indicating such has been enclosed herewith.

Rejections

35 U.S.C. §112

Claim 71 has been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirements. The Office Action asserts that the claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one of skill in the relevant art, that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Office Action asserts that claim 71 recites selecting the thermoplastic polymer from a group including "ethylene n-butyl(meth) acrylate" for which there appears to be no support in the specification.

Claim 71 has been canceled.

Claims 75 and 76 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action asserts that claim 75 is unclear by reciting "forming said printable substrate layer" into a plurality of magnetic sheet assemblies" because it is unclear how the printable substrate layer is formed into a plurality of magnetic sheet assemblies without the magnetic layer.

Claim 75 has been amended. Claim 76 depends from claim 75.

Applicants respectfully request withdrawal of the rejection of claims 75 and 76 under 35 U.S.C. §112, second paragraph.

35 U.S.C. §102

Claims 1-4, 6-9, 14-16, 22-26, 29-31, 38-49, 60 and 74 have been rejected under 35 U.S.C. §102(b) as being anticipated by Silverschotz et al. (US 5,869,148) as set forth in paragraph 19 of the previous Office Action mailed October 3, 2003.

Independent claim 1 has been amended, incorporating a range of thermoplastic

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polymer of about 5 wt-% to about 25 wt-%. Silverschotz et al. disclose a polymer range for a hot-melt polymer binder system of 30 to 60% by weight of the mixture. Thus, claim 1 is not anticipated by Silverschotz et al.

Claim 60 has been amended such that four groups of polymeric materials are recited, none of which are disclosed by Silverschotz et al. Thus, claim 60 as amended, is not anticipated by Silverschotz et al. Furthermore, Applicants maintain the the materials disclosed in col. 3, lines 53-58, are selected so as to be incorporated in a slurry to assure adhesion of the magnetic coating to the web. There is no indication by Silverschotz et al., that these same polymers, employed in a slurry, would provide sufficient adhesion if incorporated in a hot-melt polymer binder system.

Claims 2-4, 6-9, 14-16, 22-26, 29-31 and 38-40 depend from claim 1 and are patentable for at least the reasons that claim 1 is patentable over Silverschotz et al.

Claim 74 has been canceled.

Applicants respectfully request withdrawal of the rejection of claims 1-4, 6-9, 14-16, 22-26, 29-31, 38-40 and 60 under 35 U.S.C. §102(b) as being anticipated by Silverschotz et al., US 5,869,148.

35 U.S.C. §103(a)

Claims 1-4, 6-9, 14-16, 22-26, 29-31, 38-40, 60 and 71-76 have been rejected under 35 U.S.C. §102(a) as being unpatentable over Silverschotz et al. (US 5,869,148) as applied to claims 1, 61 above, and optionally further in view of Sawa (US 4,022,071 as set forth in paragraphs 22 and 23 of the prior Office Action mailed October 3, 2003.

Applicants presume that as the rejection was applied to claims 1 and 60, above, and not to claims 1 and 61, since in fact, claim 61 has been canceled.

The Office Action asserts that Silverschotz et al. disclose that the thermoplastic binder amount can be 30% and that the thermoplastic polymer binder may be any flexible polymer or similar material including some of the polymers claimed, and that it would have been obvious to those of ordinary skill in the art at the time of the invention to provide known percentages of polymer material for magnetic compositions and to provide well known thermoplastic polymers for the binder, only the expected results would be attained. The Office

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Action goes on to state that additionally, it is also known in the art when forming mixtures of magnetic compositions and polymer binders to provide thermoplastic amounts in magnetic compositions as little as 4% as exemplified in Sawa (col. 4, lines 5-15) and that typical thermoplastic compositions for mixing with magnetic particles in magnetic compositions include polymers as claimed (for example column 1, lines 10-15; column 4, lines 27-34), and that it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the magnetic material in Silverschotz et al. with known percentages and compositions of thermoplastic polymers as is considered well known in the art and further exemplified by Sawa, only the expected results would be attained.

Applicants traverse the rejection.

As discussed above, independent claims 1 and 60 have been amended. Claims 2-4, 6-9, 14-16, 22-26, 29-31, 38-40 depend from claim 1.

Claims 71, 73 and 74 have been canceled.

Claim 72 is directed to an embodiment in which the magnetic composition being applied includes about 85 wt-% to about 95 wt-% of the magnetic material and about 5 wt-% to about 15 wt-% of at least one thermoplastic binder.

Claim 75 is directed to a process of forming a pad article which includes a plurality of magnetic sheet assemblies. Claim 76 depends from claim 75.

Silverschotz et al., US 5,869,148

Silverschotz et al. describe a process for the in-line, high speed manufacturing of magnetic products. The process comprises the steps of printing onto a substrate, drying the ink print, making the appropriate cuts or scores on the substrate, applying a slurry of magnetizable material onto the substrate to create the magnet, drying the applied material, magnetizing the magnetic material and cutting and forming the substrate to the desired dimensions. Each of these steps may be performed in a single, in-line manufacturing operation running at high speeds.

(Abstract)

Silverschotz et al. generally disclose hot-melt polymer binder systems which can be used without drying wherein the polymer is preferably 30 to 60% by weight of the mixture.

Silverschotz et al. describe selection and incorporation of a binder in the slurry to

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assure adhesion of the magnetic coating to the web, and to the magnetic particles (col. 3, lines 52-58).

Sawa, US 4,022,701

Sawa et al. describe an anisotropic plastics magnet which is formed by molding, in particular injection molding. Sawa et al. suggest that a rolling method using rolls or an extrusion method can be used as well as the injection molding. The polymers suggested for use therein metal-cross-linked copolymers of alpha-olefin and alpha, beta unsaturated mono- or dicarboxylic acid and saponified copolymers of ethylene and vinyl acetate.

The metal cross-linked resin of the copolymer of alpha-olefin and alpha, beta unsaturated mono- or dicarboxylic is described as an ionic copolymer composed of a polymer containing at least 50 mole percent of units derived from alpha-olefin having a general formula of $RCH=CH_2$ (in which R is hydrogen or alkyl group having 1 to 8 carbon atoms), and 0.2 to 2.5 mole percent of units derived from alpha, beta ethylenically unsaturated mono- or dicarboxylic acid, in which one or more metal ions are dispersed, as disclosed in Japanese Patent Publication No. Sho 39-6810. When the acid copolymer component is mono-carboxylic acid, the atomic valance of the metal ion is 1 to 3; when the component is dicarboxylic acid, the valance is 1, and the metal ion is present in an amount enough to neutralize at least 10% of the carboxylic acid.

The most useful base copolymers are described as being ethylene-acrylic acid copolymer, ethylene-metacrylic acid copolymer, ethylene-acrylic acid-metacrylic acid copolymer, ethylene-metacrylic acid-acrylic acid ester copolymer may be mentioned. The metal ions used for this are described at col. 3, lines 38-43.

The saponified resin of ethylene-vinyl acetate copolymer is described as a copolymer containing ethylene and 1 to 45% by weight vinyl acetate, and having a hydroxyl radical (OH) introduced into the molecule through hydrolysis is useful. The reaction is shown at col. 3, lines 50-60.

The ethylene-vinyl acetate copolymer is denatured into a copolymer of ethylene and vinyl alcohol, or a copolymer of ethylene vinyl alcohol and vinyl acetate by total or partial hydrolysis, thus introducing the hydroxyl radical (OH) into the molecule. The hydrolysis product

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of the ethylene-vinyl acetate copolymer thus obtained shows a higher melting point than the ethylene-vinyl acetate copolymer itself, and has better thermal stability at high temperatures. See col. 3, lines 15-68.

Thus, the polymers described for use in making the molded articles of Sawa, are very specific polymers.

Sawa et al. describe forming the magnet into a plate-shape, a bar-shape and a semi-circle-shape other than the disc-shape and the ring-shape (col. 7, lines 28-30).

Sawa et al. do not describe applying the magnet compositions to any sort of a substrate.

Sawa teach the ferromagnetic powder is used in amounts of 85 wt-% to 96 wt-%.

Claims 1 and 72, and the Combination of Silverschotz et al. and Sawa et al.

On page 6, the Office Action asserts the following:

Additionally, it is also known in the art when forming mixtures of magnetic compositions and polymer binders to provide thermoplastic amounts in magnetic compositions as little as 4% as exemplified in Sawa (col. 4, lines 5-15) and that typical thermoplastic compositions for mixing with magnetic particles in magnetic compositions include polymers as claimed (for example col. 1, lines 10-15; col. 4, lines 27-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the magnetic material in Silverschotz with known percentages and compositions of thermoplastic polymers as is considered well known in the art and further exemplified by Sawa, only the expected results would be attained.

Applicants disagree.

The compositions of Sawa et al. are directed to anisotropic plastic magnets which are injection molded, not to compositions which are applied to a web or to any other substrate for that matter. Thus, Sawa et al. are not concerned with adhesion to a web, or other substrate, nor do Sawa et al. describe anywhere therein, adhering the compositions to another article of any type. Furthermore, as the injection molded articles are removed from the mold, non-adhesive properties are desirable. Otherwise the composition can stick to the mold.

Consequently, the compositions of Sawa et al. are not obviously adhesive.

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Silverschotz et al. teach *aqueous or solvent based* systems having between 2% to 20% polymer and preferably between 4 and 8% by weight of the total formula, but not hot melt binder systems having this little amount of polymer. The hot melt binder systems of Silverschotz et al. are described as preferably having *30 to 60% by weight polymer*. No other amounts are suggested. As Silverschotz et al. describes the adhesion to the web as being a critical factor in polymer selection, it can only be concluded that the hot melt binder systems taught by Silverschotz et al. would not achieve adequate adhesion in polymer concentrations of as little as 4% by weight, and Sawa et al. do not teach adhesion to a web.

There would have been no motivation to combine the references, and no reasonable expectation of success that the compositions as taught by Sawa et al., having a ferrite loading of 85% to 96%, could be successfully employed in the process of Silverschotz et al. wherein the hot melt binder systems suggested for use have 30% to 60% hot melt binder by weight of the mixture. As Sawa et al. suggest 4% to 15% by weight of the polymer, *the result is a minimum difference of 15% by weight between the Sawa et al. polymer concentration for the plastics magnet and the Silverschotz et al. hot melt binder system corresponding to at least a 50% reduction of the polymer concentration*. No one could reasonably expect success with such a formula difference.

Furthermore, as Sawa et al. issued prior to Silverschotz et al. by over 20 years, had such compositions as taught by Sawa et al., been obvious for use in the process of Silverschotz et al., Applicants submit that Silverschotz et al. would not have limited the polymer range for the hot-melt polymer system to 30% to 60% by weight of the polymer, an amount much which is at least twice that suggested by the upper polymer concentration range of Sawa et al.

Thus, for the reasons discussed above, Applicants submit that claims 1 and 72 are not obvious over Silverschotz et al. in view of Sawa et al.

Claim 60

Claim 60 is now directed to specific polymer classes, which are not suggested by Silverschotz et al. As Silverschotz et al. teach that selection of the polymer is important in assuring adhesion to the web. The binders suggested for use in the slurry of Silverschotz et al. are acrylics, vinyls, polyamides, polyesters, waxes, silicates, dryable oils, cellulose,

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polyurethanes or silicones, none of which categories would include the specific polymers of Sawa et al. (col. 3, lines 52-58), nor does Silverschotz et al. suggest any of the polymers found in claim 60 as amended. Again, as Silverschotz et al. describes adhesion to a web as being a critical factor in polymer selection, and Sawa et al. are not concerned with adhesion at all, Applicants submit that there is no motivation to combine the compositions of Sawa et al. with the process of Silverschotz et al. for the reasons discussed above. Thus, claim 60 is not obvious over Silverschotz et al. in view of Sawa et al.

Claim 75

Claim 75 is directed to a process of forming a pad article, in which a plurality of magnetic sheet assemblies are formed according to the process of the present invention, and are layered to form a pad. Applicants submit that neither Silverschotz et al. nor Sawa et al. (injection molded magnets) suggest such a magnetic assembly, and that the combination of references lacks a most important element of the claim. As all of the elements of claim 75 have not been met by the combination of references, Applicants respectfully request withdrawal of the rejection of claim 75 as being obvious over Silverschotz et al. in view of Sawa et al.

Based on all of the foregoing, Applicants submit that there is no motivation to combine the injection molded magnets of Sawa et al. formed using very specific polymers and 85% to 96% by weight of a ferromagnetic powder and polymer at a concentration of 4% to 15% by weight, which are suggested for formation into a plate-shape, bar-shape, semi-circle-shape, with the printing process described in Silverschotz et al., nor would there be a reasonable expectation of success in using the high ferromagnetic powder containing compositions of Sawa et al., in the printing process described by Silverschotz et al. to obtain satisfactory adhesion to a web. Applicants submit that hindsight analysis has been employed to arrive at such a combination.

"Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."); *In re Lee*, 61 USPQ2d 1430 (CA FC 2002) (quoting *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making

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the specific combination that was made by the applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600(Fed. Cir. 1988) ("teachings of references can be combined only if there is some suggestion or incentive to do so.") (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933(Fed. Cir. 1984))).

On page 7, the Office Action asserts as to claims 16 and 17, Sawa et al. disclose this conventional formula for magnetic material.

Applicants traverse the rejection.

Applicants submit that, as discussed above, there is no motivation to combine the injection molding compositions of Sawa et al. with the process for making web-based and sheet-based products as described by Silverschotz et al.

Claims 16 and 17 depend from claim 1 and are patentable for at least the reasons that claim 1 is patentable.

On page 7, the Office action asserts that as to claims 19 and 20, the selection of such well-known and available thermoplastic materials for a binder in a magnetic layer is considered conventional and obvious to one of ordinary skill in the art and that furthermore, Sawa et al. disclose such compositions.

Applicants traverse the rejection.

Claim 1 is patentable for the reasons discussed above. Claims 19 and 20 depend from claim 1 and are patentable for at least the reasons that claim 1 is patentable. Furthermore, Sawa et al. disclose compositions for molding anisotropic magnets, not magnetic compositions which are applied and adhered to a web or sheet. Substrate adhesion is undesirable in molded compositions. Silverschotz et al. make no suggestion to employ the polymers described by Sawa et al. for adhering to a web or sheet. The examiner has referred to the polymers of Sawa et al. as conventional and obvious selections. Surely, had such polymers been so conventional and obvious, Silverschotz et al. would have included such polymers in their list. However, they did not. Furthermore, Silverschotz et al. did not suggest the amounts disclosed by Sawa et al. in the hot melt binder systems described for use in the process therein. Surely a patent which issued more than 20 years prior to Silverschotz et al., had it taught such a conventional formulation,

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would have been suggested for use by Silverschotz et al. for use in their process. In fact, as already discussed above, not only did Silverschotz et al. not disclose the polymers described by Sawa et al., but the lower limit of the concentration of polymer suggested for use by Silverschotz et al. in a hot melt binder system is twice the upper limit of the amount of polymer suggested by Sawa et al. Consequently, Applicants submit that Silverschotz et al. did not contemplate formulations as described by Sawa et al. for use in the process described therein.

Moreover, Applicants submit that because Sawa et al. disclose injection molded magnets, there is not suggestion that such compositions would provide adequate adhesion to a web or sheet. Silverschotz et al. teach that adhesion to a web or sheet is critical in selection of the polymer. Thus, there is a lack of motivation to combine these references.

The Office Action asserts that as to claim 21, this is a conventional particle size for magnetic material in addition Sawa et al. disclose such (col. 2, line 43).

Applicants traverse the rejection of claim 21.

Claim 1 is patentable as discussed above. Claim 21 depends from claim 1 and is patentable for at least the reasons that claim 1 is patentable.

The Office Action asserts that as to claim 71, Sawa disclose providing ethylene vinyl acetate, ethylene ethyl acrylate, copolymers of ethylene and an alphaolefin, polypropylene homopolymers as some of the examples of known polymers for forming magnetic compositions (col. 4, lines 27-34). Claim 71 has been canceled.

The Office Action asserts that as to claims 72 and 73, Sawa et al. disclose the claimed percentages of magnetic material and thermoplastic binder. Claim 73 has been canceled.

Applicants traverse the rejection of claim 72.

As discussed above, Sawa et al. describe an anisotropic plastics magnet, but do not describe a process whereby it is required to adhere to another substrate as in Silverschotz et al. Not only does Sawa et al. teach polymer amounts which are drastically different than that of Silverschotz et al., but Silverschotz et al. do not suggest polymers of the type described by Sawa et al. Consequently, there is no motivation to combine Sawa et al. with Silverschotz et al. as the

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hot melt binder systems of Silverschotz et al. include 30% to 60% by weight of the polymer, while those of Sawa include 4% to 15% by weight of the polymer.

Therefore, claim 72 is not obvious over Silverschotz et al. in view of Sawa et al.

The Office Action asserts on page 8 that as to claim 10, it is considered well known in the art to alternatively form individual sheets, only the expected results would be attained.

Applicants traverse the rejection of claim 10.

Claim 10 depends from claim 1. Thus, the sheets of claim 10 are produced according to the method of claim 1. Claim 1 as amended is patentable over Silverschotz et al. in view of Sawa et al. as discussed above. Claim 10 is patentable for at least the reasons that claim 1 is patentable.

The Office Action asserts that as to claims 11, 12, 75 and 76, it is considered well known in the art to stack manufactured cards to form a stacked pad and to apply adhesive to bind or shrink wrap around the stacks for distribution. No prior art basis is provided.

Applicants traverse the rejection of claims 11, 12, 75 and 76.

Claim 11 of the present application is directed to a process for forming a pad article including forming a plurality of magnetic sheet assemblies by the process of Claim 1 and layering the sheet assemblies together to form a stacked pad. Claim 12 depends from claim 11 and is directed to binding together of the sheet assemblies.

Applicants submit that not one of the references cited in this Office Action, describe a pad assembly of the type found in claims 11 and 12. Under MPEP 2144.03, Reliance on Common Knowledge in the Art or "Well Known" Prior Art, if the assertion made by the Examiner are not capable of instant and unquestionable demonstration as being well-known, it is not appropriate for the examiner to take official notice of facts without citing a prior art reference.

It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or

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specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21.

MPEP 2144.03A

Ordinarily, there must be some form of evidence in the record to support an assertion of common knowledge. See *Lee*, 277 F.3d at 1344-45, 61 USPQ2d at 1434-35 (Fed. Cir. 2002); *Zurko*, 258, F.3d at 1396, 59 USPQ2d at 1697 (holding that general conclusions concerning what is "basic knowledge" or "common sense" to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection).

MPEP 2144.03B.

Applicant insists upon a prior art citation to support the Examiner's assertions to allegedly well know art.

Furthermore, claim 1 as amended is patentable over Silverschotz et al. in view of Sawa as discussed above. Claims 11 and 12 depend from claim 1 and are patentable for at least the reasons that claim 1 is patentable.

Claim 75 is also directed to a pad assembly and is patentable for at least the reasons that claims 11 and 12 are patentable as discussed above. Claim 76 depends from claim 75 and is patentable for at least the reasons that claim 75 is patentable.

The Office action asserts that as to claim 18, it is well within the purview of one of ordinary skill in the art to select the appropriate temperature of application which is only dependent upon the thermoplastic binder selected, the thickness of the materials and the other selected materials.

Applicants traverse the rejection.

Neither Silverschotz et al. nor Sawa et al. suggest a temperature of application for a hot melt binder system of the type found in claim 1 of the present invention, to a printable substrate layer. Sawa et al. make no suggestion to apply the magnetic composition described therein to any substrate whatsoever. Rather, they are describing molding of magnets. Again, Applicants submit that under MPEP 2144.03, the examiner must produce a prior art document since the assertion made by the examiner is not of instant and unquestionable demonstration of being well known. Applicants submit that it is not known to apply a magnetic composition of the

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type found in claim 1 of the present invention, directly to a substrate, at an elevated temperature.

Furthermore, claim 18 depends from claim 1. Claim 1 as amended is patentable over Silverschotz et al. in view of Sawa as discussed above. Claim 18 is patentable for at least the reasons that claim 1 is patentable.

The Office Action asserts that as to claim 16, the claimed formula is considered to be conventional formula for magnetic materials.

Applicants traverse the rejection of claim 16.

Claim 1 as amended is patentable over Silverschotz et al. in view of Sawa as discussed above. Claim 16 depends from claim 1 and is patentable for at least the reasons that claim 1 is patentable.

The Office Action asserts that as to claims 19, 20, although Silverschotz et al. does not specifically disclose using a polyalphaolefin, such thermoplastic binders are considered well known and one of ordinary skill in the art would readily recognize using such compositions, only the expected results would be attached, especially as evidenced by Sawa et al.

Applicants traverse the rejection.

Again, under MPEP 2144.03, unless the assertion by the examiner is of instant and unquestionable demonstration as being well known, then a prior art document must be produced. None of the references cited thus far are indicative that such a composition is well known for use in a magnetic composition. Consequently, Applicants submit that claims 19 and 20 are patentable over Silverschotz et al. in view of Sawa et al.

Furthermore, claims 19 and 20 depend from claim 1. Claim 1 as amended is patentable over Silverschotz et al. in view of Sawa as discussed above. Claims 19 and 20 are patentable for at least the reasons that claim 1 is patentable.

The Office Action asserts that as to claims 22-24, it would have been well within the purview of one of ordinary skill in the art to select the appropriate thickness as claimed, such a thickness is considered within the conventional range and is only dependent upon the final product desired.

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Applicants traverse the rejection.

Claims 22-24 depend from claim 1. Claim 1 as amended is patentable over Silverschotz et al. in view of Sawa as discussed above. Claims 22-24 are patentable for at least the reasons that claim 1 is patentable.

The Office Action asserts that as to claim 27, it is considered conventional to press extruded layers to substrates with a chill roll.

Applicants traverse the rejection.

Again, Applicants submit that under MPEP 2144.03, unless the assertion by the examiner is of instant and unquestionable demonstration, a prior art document must be produced. None of the prior art produced thus far would indicate that it is conventional to press extruded magnetic layers with a chill roll.

Furthermore, claim 27 depends from claim 1. Claim 1 as amended is patentable over Silverschotz et al. in view of Sawa as discussed above. Claim 27 is patentable for at least the reasons that claim 1 is patentable.

On page 9 of the Office Action is it stated that since Applicant has not traversed the well known statements, these are considered to be admitted prior art (see MPEP 1244.03). Applicants assume that this is MPEP 2144.03, as 1244.03 does not exist.

Applicants submit that claim 1, from which all of these claims depend, was amended in the last Office Action. Thus, the rejections became moot in light of the amendments to claim 1. This was addressed on page 12 of the Response mailed December 11, 2003. Therefore applicant had no reason to specifically challenge each of the Examiner's assertions.

In any case, applicants are now traversing each of these statements for the reasons discussed above. Prior art support therefore must be provided.

Based on the foregoing, Applicants respectfully request withdrawal of the rejection of claims 1-4, 6-9, 14-16, 22-26, 29-31, 38-40, 60 and 71-76 under 35 U.S.C. §102(a) as being unpatentable over Silverschotz et al. (US 5,869,148) as applied to claims 1, 61 above, and optionally further in view of Sawa (US 4,022,701) as set forth in paragraphs 22 and 23 of the prior Office Action mailed October 3, 2003.

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Claim 5 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Silverschotz et al. (US Patent No. 5,869,148) and optionally Sawa (US Patent No. 4,022,701) as applied to claim 1 above, and further in view of Rippingale et al. (US Patent No. 5,114,517) as set forth in paragraph 24 of the previous Office Action filed October 3, 2003.

The Office Action asserts that Silverschotz et al. discloses subjecting the extruded layer to a magnetic field, but does not disclose if this is done while the extruded layer is still at an elevated temperature. The Office Action also asserts that Rippingale discloses subjecting an extruded magnetic layer to a magnetic field in order to provide a magnetic effect in the assembly (column 3, line 20) and the magnetic assembly is subjected to a magnetic field while the magnetic composition is at an elevated temperature in order to allow the proper alignment of the magnetic particles while the material is still soft (column 3, line 20). According to the Office Action it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of forming a magnetic assembly as shown by Silverschotz and optionally Sawa by subjecting the assembly to a magnetic field while the extruded layer is at an elevated temperature in order to provide a magnetic effect in the assembly while the magnetic particles can still be aligned as shown by Rippingale.

Applicants traverse the rejection.

Rippingale et al., U.S. 5,114,517

Rippingale et al. describe a magnetic marker serving to locate, trace, and identify an elongated hidden object, such as a buried utility pipe, duct, conduit, or fiber optic cable, which is manufactured by applying magnetic material to a substrate that is elongated and by forming from the material a helical or twisted permanent magnet pattern extending along the length of the substrate. (Abstract).

Silverschotz et al. and Sawa et al. have been discussed above. Silverschotz et al. describe a process comprising the steps of printing onto a substrate, drying the ink print, making the appropriate cuts or scores on the substrate, applying a slurry of magnetizable material onto the substrate to create the magnet, drying the applied material, magnetizing the magnetic material and cutting and forming the substrate to the desired dimensions. Silverschotz et al. describe

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web-based and sheet-based magnetic products.

Claim 5 depends from claim 1 and adds the recitation that the magnetic composition is at an elevated temperature while subjecting the magnetic assembly to a magnetic field.

Claim 1 has been amended and is patentable over Silverschotz et al. in view of Sawa et al. for the reasons described above. Because claim 5 depends from claim 1 it is patentable for at least the reasons that claim 1 is patentable.

Further, there would be no motivation to look to the manufacture of magnetic markers used for locating, tracing and identifying elongated hidden objects such as pipe or cable for modifications in the process of Silverschotz et al. which is for making web-based and sheet-based goods.

"In holding an invention obvious in view of a combination of references, there must be some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention." *Vulcan Engineering Co. v. FATA Aluminium Inc.*, 61 USPQ2d 1545, 1548 (Fed. Cir. 2002) (quoting *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998) (a showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding"). There is no motivation to combine extruded pipe or cable with a printing process such as Silverschotz et al. describes for making web-based and sheet-based goods.

Applicants respectfully request withdrawal of the rejection of claim 5 under 35 U.S.C. §103(a) as being obvious over Silverschotz et al. (US Patent No. 5,869,148) and optionally Sawa (US Patent No. 4,022,701) as applied to claim 1 above, and further in view of Rippingale et al. (US Patent No. 5,114,517) as set forth in paragraph 24 of the previous Office Action filed October 3, 2003.

Claims 28, 39 and 41 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Silverschotz et al. (US Patent NO. 5,869,148) and optionally Sawa et al. (US Patent No. 4,022,701) as applied to claim 1 above, and further in view of Martin (US Patent No. 5,458,282) as set forth in paragraph 25 of the previous Office Action mailed October 3, 2003. The Office Action asserts that it is unclear if Silverschotz et al. disclose the magnetic layer is of

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the same width as the printable layer, but that Sivlerschotz et al. disclose that the method can be used to produce a variety of products (column 7, line 49 to column 8, line 11), and that furthermore it is known to provide these products with a magnetized layer that has the same width as the printable layer. The Office Action asserts that Martin discloses such a product. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of applying a magnetic layer to a printable substrate as shown by Silverschotz et al. and optionally Sawa et al. by providing the magnetic layer with the same width as the printable substrate as is known in the art to form particular products similar to those disclosed by Silverschotz et al. and as exemplified by Martin, only the expected results would be attained.

Silverschotz et al. and Sawa et al. have been discussed above.

Sawa et al. is directed to injection molding of an article. The magnetic composition described therein, is not applied to any substrate.

Martin, US 5,458,282

Martin describe a card fabricated of a flexible material such as paper, pasteboard, plastic and the like that has a first planar surface and a second planar surface. The card is formed with a line of perforations or a fold line dividing the card into first and second sections and a thin, flexible, magnetic sheet material is adhesively secured to one of the planar surfaces of one of the sections. The thin, flexible, magnetic sheet is dimensionally coextensive with the section to which it is attached. Indicia is printed on the exposed surface of the card section to which the magnetic sheet is secured. The Office Action uses Martin to show that it is known to provide a magnetized layer that has the same width as the printable layer.

Claims 28 and 41 are directed to embodiments in which the magnetic layer has the same width and length as the printable substrate layer, and claim 39 is directed to an embodiment in which the magnetic layer is continuous with the printable substrate layer.

Martin does not contemplate a magnetic layer that has the same width and length or which is continuous with a printable substrate layer as in the present invention and Martin does not contemplate direct application of the magnetic layer to the printable substrate layer as in claim 1 of the present invention.

The process Martin et al. describes therein, is in fact, not conducive to making a

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printable substrate layer having a magnetic layer as in claims 28, 39 and 41, because Martin et al. actually purchase pre-formed magnetic material from Flex-Mag Industrial, Inc., and then adhesively secure it to their cards. They do not suggest direct application of the magnetic composition to the web as in the present invention.

Thus, the combination of Martin et al. with Silverschotz et al., lacks the element of claims 28 and 41, of being dimensionally equal in both length and width, or being continuous with the printable substrate layer as in claim 39. As the combination is missing a most important element of these claims, Applicants submit that the Examiner has not provided evidence in the combination of references provided, that would indicate that this would have been obvious to one of ordinary skill in the art. Applicants submit, therefore, that claims 28, 39 and 41, are not obvious over Silverschotz et al. (US Patent NO. 5,869,148) and optionally Sawa et al. (US Patent No. 4,022,701) as applied to claim 1 above, and further in view of Martin (US Patent No. 5,458,282) as set forth in paragraph 25 of the previous Office Action.

Furthermore, claim 1 has been amended and is patentable for the reasons discussed above. Claims 28, 39 and 41 depend from claim 1 and are patentable for at least the reasons that claim 1 is patentable. Applicants respectfully request withdrawal of the rejection of claims 28, 39 and 41 under 35 U.S.C. §103(a) as being unpatentable over Silverschotz et al. (US Patent NO. 5,869,148) and optionally Sawa et al. (US Patent No. 4,022,701) as applied to claim 1 above, and further in view of Martin, US 5,458,282.

Applicants respectfully request withdrawal of the rejection of claims 28, 39 and 41 under 35 U.S.C. §103(a) as being unpatentable over Silverschotz et al. (US Patent NO. 5,869,148) and optionally Sawa et al. (US Patent No. 4,022,701) as applied to claim 1 above, and further in view of Martin, US 5,458,282.

Claims 32-36 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Silverschotz et al. (US Patent No. 5,869,148) and optionally Sawa et al. (US Patent No. 4,022,701) as applied to claim 1 above, and further in view of Schramer et al. (US Patent No. 5,019,436) as set forth in paragraph 26 of the previous Office Action mailed October 3, 2003.

The Office Action asserts that Schramer discloses an example of a well known advertising concept of temporarily adhering coupons/marketing articles to a release layer that is adhesively attached to a product article, such as packages, containers, etc. to allow reoval of the

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marketing article from the product article and that it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of forming a magnetic assembly as shown by Silverschotz et al. and optionally Sawa et al. (US Patent No. 4,022,701) by joining the assembly to a release liner that is adhered to an article in order to provide a removable magnetic assembly to products as shown by Schramer. As to claim 36, the Office Action asserts that it is well known to provide an over-laminate to printed substrates, for example see Silverschotz (col. 3, lines 1-8).

Schrumer et al., US 5019436

Schrumer et al. describe a label assembly comprising a releasable portion which may be used as an in-store coupon constructed of a base stock having a first and second film layer having a controlled interfacial bond therebetween which will retain the film layers in integral relationship during handling or the like, but will also allow the easy separation between the film layers when desired. (Abstract).

Applicants submit that removable labels are known in the art. However, Schramer et al. make no suggestion to combine the removable labels described therein with a magnetic layer, nor is there any evidence provided in the Office Action, that such a combination has been made. Absent some suggestion or teaching to do so, Applicants submit that there would be no motivation to combine the label assembly of Schramer et al. with the injection molded magnets of Sawa et al. or a magnetic slurry as in Silverschotz et al.

Furthermore, Claim 1 as amended is patentable for the reasons discussed above. Claims 32-36 depend from claim 1 and are patentable for at least the reasons that claim 1 is patentable. Combining Schramer et al. with Silverschotz et al. and Sawa et al. does not lead one of skill in the art to the process of claim 1.

Applicants respectfully request withdrawal of the rejection of claims 32-36 under 35 U.S.C. §103(a) as being unpatentable over Silverschotz et al. (US 5869148) and optionally Sawa (US 4022701) as applied to claim 1 above, and further in view of Schramer et al. (US 5019436).

Claim 37 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Silverschotz et al. (US 5869148) and optionally Sawa et al. (US 4022701) and Schramer et al.

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(US 5019436), as applied to claim 32 above, and further in view of Martin (S 5458282), Fosbenner et al. (US 5949050) and/or Mack (US 46218327).

Silverschotz et al., Sawa et al. and Schramer et al. have been discussed above. There is no suggestion in these references of a perforated outer laminate as recited in claim 37.

The Office Action employs Martin, Fosbenner et al. and Mack to show that it is known to perforate an overlamine in the same dimensions as an underlying member in order to allow the overlamine to provide protection to the underlying member until a consumer tears the overlamine at the perforations in order to use the underlying member.

Martin et al. describe a card with a first section having a thin, flexible sheet material adhesively secured thereto, and a second section, wherein the first surface may be detached from the second surface. Martin et al. do not describe an overlamine over the magnetic layer perforated for easy removal of the magnetic assembly underneath.

Fosbenner et al. describe magnetic cards usable with toy magnetically actuated, fluid display devices (col. 1, lines 6-7). Applicants submit that Fosbenner et al. do not describe a perforated overlamine for easy removal of the magnetic assembly as found in claim 37. The Examiner has directed Applicant to no specific places in Fosbenner et al. which suggest such an overlamine. Consequently, Applicants submit that Fosbenner et al. also do not suggest such a combination as found in claim 37.

Mack describe a multi-layered label which may be torn open to expose an interior leaflet. First and second cover sheets are peripherally sealed together, typically with end seals. A multi-layered leaflet member is positioned between the first and second cover sheets, at least one layer of the leaflet member being sealed to an internal face of one of the first and second sheets. A line of tearing weakness in the first cover sheet permits opening thereof for access to the leaflet member.

Applicants submit that there is no teaching or suggestion from Mack to employ the multi-layered labels described therein with a magnetic layer. Furthermore, neither Silverschotz et al. nor Sawa et al. suggest employing the process nor the injection molded magnets described therein in combination with labels. Consequently, there would be no motivation to combine these references.

Furthermore, claim 1 as amended is patentable for at least the reasons discussed

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above. Combining the above-listed references with Silverschotz et al. and Sawa et al. does not lead one of ordinary skill in the art to claim 1 of the present invention. Claim 37 depends from claim 1 and is patentable for at least the reasons that claim 1 is patentable.

Applicants respectfully request withdrawal of the rejection of claim 37 under 35 U.S.C. §103(a) as being unpatentable over Silverschotz et al. (US 5869148) and optionally Sawa et al. (US 4022701) and Schramer et al. (US 5019436), as applied to claim 32 above, and further in view of Martin (S 5458282), Fosbenner et al. (US 5949050) and/or Mack (US 46218327).

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CONCLUSION

Claims 1-17, 19-41, 60, 72 and 75-78 are pending in the application. No new matter has been added. Applicants have addressed each of the issues presented in the Office Action. Based on the foregoing, Applicants respectfully request reconsideration and an early allowance of the claims as presented. Should any issues remain, please feel free to contact me at (952)563-3011) to expedite prosecution of this application.

Respectfully submitted,

VIDAS, ARRETT & STEINKRAUS

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April 16, 2004

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